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ABSTRACT

During the 3-year period from 1983 through 1985, 80 Oregon teenagers intentionally took their own lives, making suicide second only to accidents as the leading cause of death among Oregon teenagers. Data on suicides committed by individuals between the ages of 10 and 19 were retrieved from death certificates on file with the Oregon Health Division and were analyzed. The results revealed that the adolescent suicide rate increased in Oregon between 1983 and 1985. The suicide rate declined for male adolescents, but continued to increase for female adolescents. Among teenagers, the sharpest increase in suicide occurred at 19 years of age. While most suicide victims were White, Indian teenagers were more likely to commit suicide than were Black teenagers. Laborer was the most common occupation among teenage suicide victims who worked. Thirty-four percent of the suicides among teenagers occurred during the winter months. Seventy percent of victims killed themselves at home. Guns were used in 6 of every 10 teenage suicides, with handguns being used most frequently. Hanging was the method selected by 25% of suicide victims. Data from other studies suggest that the elevated suicide rates found among Oregon adolescents will persist in coming years. (NB)

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TEENAGE SUICIDE IN OREGON

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TEENAGE SUICIDE IN OREGON

1983-1985

OREGON DEPARTMENT OF HUMAN RESOURCES
HEALTH DIVISION
HEALTH STATUS MONITORING
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INTRODUCTION

One of every 1,100 of today's fifteen year-old boys and one of every 4,300 fifteen year-old girls will commit suicide before reaching 20 years of age. During the three-year period from 1983 to 1985, 80 Oregon teenagers intentionally took their own lives. Suicide is second only to accidents as the leading cause of death among Oregon teenagers (Table 1).

Suicide by adolescents has been the cause of increasing concern both in Oregon and nationally. While 80 teenagers were successful in their suicide attempts, many more no doubt tried and failed. These parasuicides are estimated to occur seven to 200 times as frequently as completed suicides (1-3), suggesting that young Oregonians attempted suicide 560 to 16,000 times during 1983 to 1985.

TABLE 1. THE EIGHT LEADING CAUSES OF DEATH BY AGE, OREGON, 1983-1985.

RANK	AGE GROUP			
	10-14	15-19	10-19	All Ages
1	Accidents	Accidents	Accidents	Heart Disease
2	Malignant Neoplasms	Suicide	Suicide	Malignant Neoplasms
3	Suicide	Malignant Neoplasms	Malignant Neoplasms	Cerebrovascular Disease
4	Homicide	Homicide	Homicide	Accidents
5	Heart Disease	Heart Disease	Heart Disease	Chronic Obstr. Resp. Disease
6	Congenital Anomalies	Undertermined External Causes	Undetermined External Causes	Influenza and Pneumonia
7	Undetermined External Causes	Congenital Anomalies	Congenital Anomalies	Arteriosclerosis
8	Chronic Obstr. Resp. Disease	Diabetes	Chronic Obstr. Resp. Disease	Suicide

The purpose of this report is to provide more detailed data on teen suicide than is available in the annual Oregon Vital Statistics report. This report does not analyze the reasons for increased suicide level or suggest remedies, but rather describes the current and historic mortality levels and the demographics of teens who commit suicide.

The following are some highlights from the study:

- The rate at which teenagers commit suicide has continued to increase, although less dramatically than during previous decades.
- The suicide rate declined for males but continued to increase among females.
- Among teenagers, the sharpest increase in suicide occurs at 19 years of age.
- Indian teenagers were more apt to take their own life than Black teenagers.
- Laborer was the most common occupation among teen suicide victims who worked.
- Thirty-four percent of the suicides among teenagers occurred during the winter months.
- Seven in ten teenagers who committed suicide did so at home.
- Guns were used in six of every ten teen suicides, with handguns being used most frequently.
- Hanging was the method selected by one in four teens.

METHODOLOGY

This report is based on data retrieved from death certificates on file with the Oregon Health Division. All death certificates for deaths which occurred in Oregon are on file with the Oregon Center for Health Statistics. Statistical data for Oregon residents who died out-of-state are also included in the computer data set. Certificates listing suicide were identified by relevant International Classification of Disease codes.

Teen suicides are analyzed for a three-year period, 1983-85, during which time 19, 25 and 36 Oregon teenagers, respectively, took their own lives. For the purposes of this report, teenagers include individuals 10 to 19 years of age. Because the National Center for Health Statistics has not published teen suicide rates for recent years, no nationwide comparison can be made.

All rates in this report are per 100,000 population per year. For example, a suicide rate of 11.3 for 15 to 19 year-olds means that there were an average of 11.3 suicides each year among every 100,000 fifteen to nineteen year-olds. All rates are based on 1984 population estimates made by the Center for Population Research and Census, Portland State University.

RESULTS

Age and Sex Trends

During past decades, the suicide rate among teenagers soared dramatically. However, there is recent evidence that this trend may be abating. Figure 1 illustrates the change in rates over time since 1959-61, comparing that period to 1983-85 and intervening years.

Although the rate for 10-19 year-olds increased 4 percent between 1979-1981 and 1983-1985, among teens 15-19 years of age the death rate declined from 11.7 to 11.3, a 3 percent drop. Nonetheless, the rate remains four times higher than it was a quarter of a century ago when only 2.8 of every 100,000 15-19 year-old teenagers took their own life. The most dramatic increase in the number of suicides occurs at 19 years of age, the age when most teenagers enter the work force (Figure 2). The rate for 10-14 year-old Oregonians is little different now (1.9) than it was more than a generation ago (2.1); however, the current rate is more than double what it was during 1979-1981. These values should, however, be interpreted with caution since they are based on relatively few events.

FIGURE 1

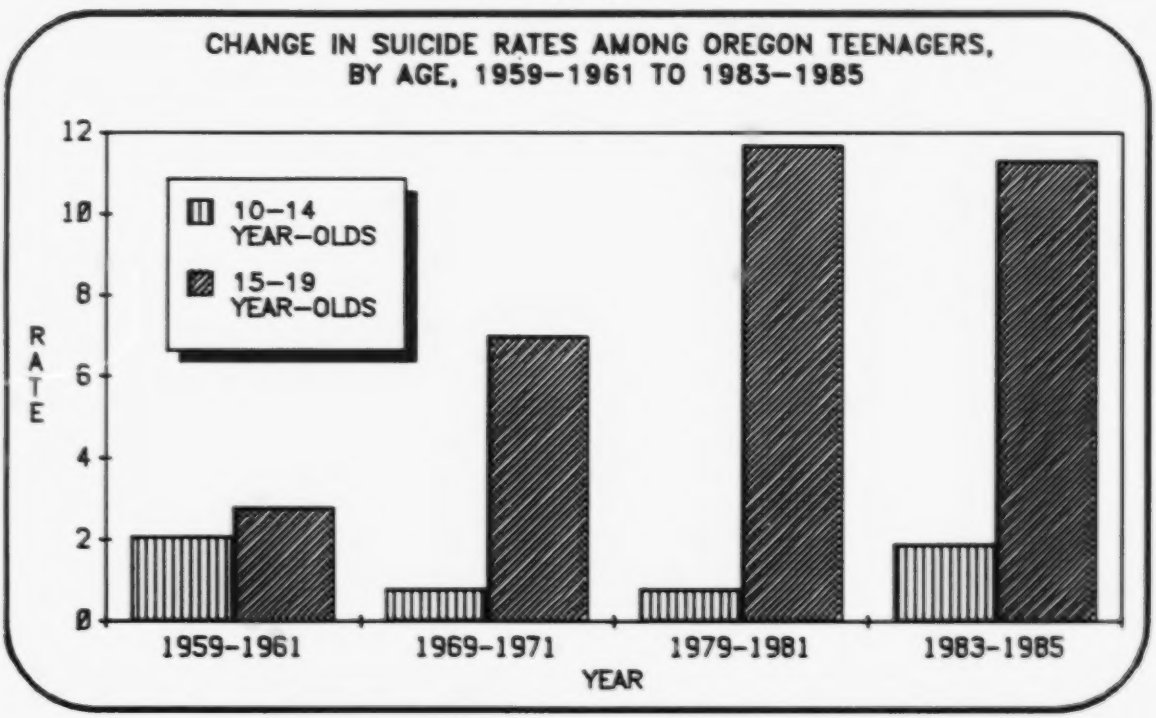


FIGURE 2

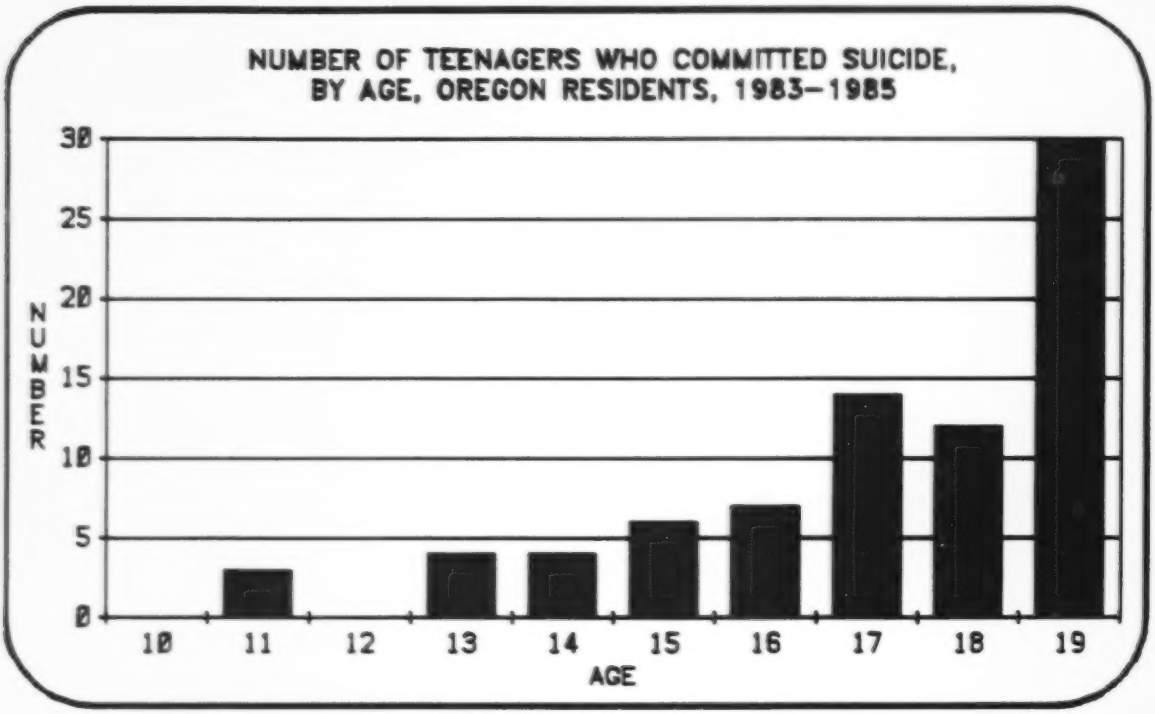
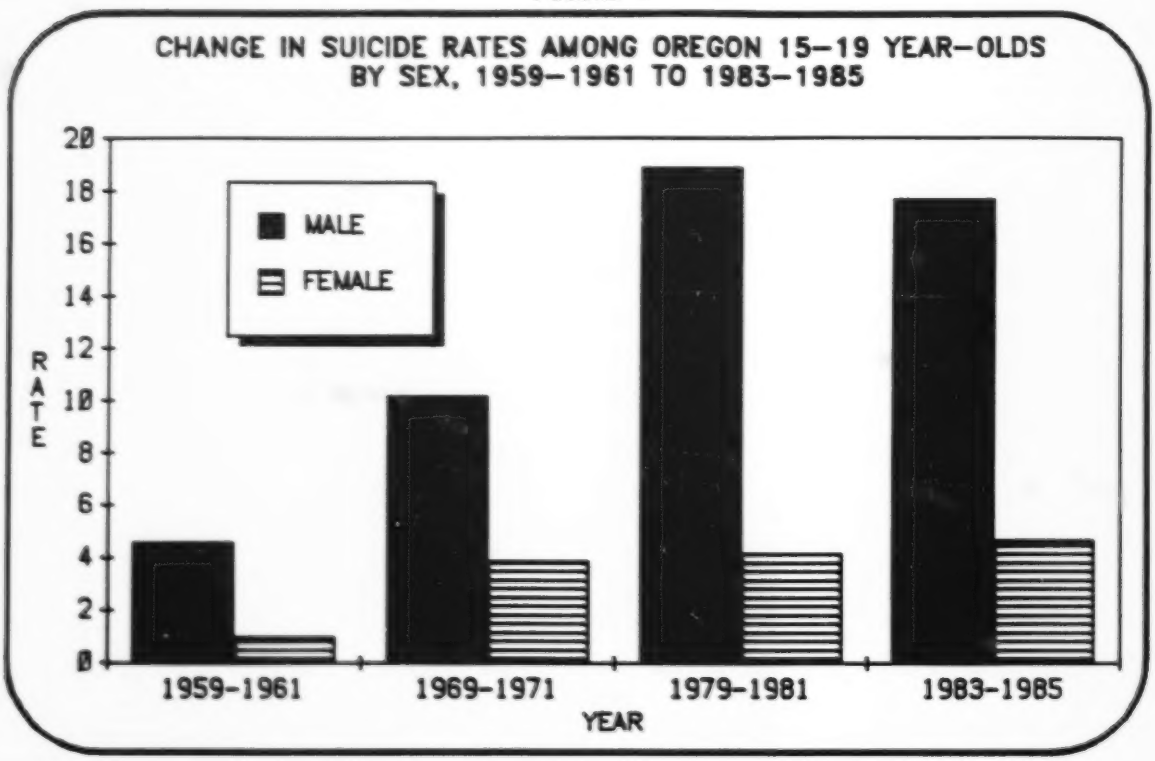


FIGURE 3



The decline in the suicide death rate among 15-19 year-olds is a consequence of fewer males taking their own lives (Table 2). Between 1979-1981 and 1983-1985, the rate fell 6 percent, from 18.9 to 17.7 (Figure 3). However, during the same period, females continued to commit suicide with increasing frequency. Their rate stands at 4.7, up 12 percent since 1979-1981 and 370 percent higher than during 1959-61 (Table 3). For males, the rate increased 285 percent during the past quarter century. Males have been reported to be roughly three times as likely to complete suicide as females, and females three times as likely to attempt suicide (4,5).

Race

Most (88 percent) of the teenagers committing suicide were White. This is not unexpected, since the U.S. Bureau of the Census reported that 93 percent of the teens in Oregon in 1980 were White. Unfortunately, no estimates of population by race and age are made between the decennial censuses, so the calculation of rates is not possible. Although the Indian teen population was only three-fourths as large as the Black teen population at the last census, there were five suicides by Indians compared to one among Black teenagers. Table 4 lists the distribution of teen suicides by age and race. Past studies (4,5) have shown that Whites are approximately three times more likely to complete suicide than Blacks.

Employment Status

Only four of the teens less than 18 years old were employed at the time of death; the remainder, with one exception, were students. Half of the 18 year-olds were students, but only a little over a third (37 percent) of the 19 year-olds were attending school when they committed suicide. Most commonly, those teens who worked were employed as laborers. Other occupations included: bus boy, dishwasher, cook, sales clerk, homemaker, woodworker, roofer, mechanic, newspaper inserter, custodian, and soldier. All of the Blacks, Indians, and Hispanics were students at the time of their death. Proportionally, more than twice as many males as females were employed at the time of their death (Table 5).

TABLE 2. NUMBER OF TEENAGE SUICIDES BY AGE AND SEX, OREGON RESIDENTS, 1959-61, 1969-71, 1979-81, 1983-1985.

PERIOD	AGE AND SEX								
	10-14 Years			15-19 Years			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1959-1961	9	2	11	9	2	11	18	4	22
1969-1971	4	1	5	31	12	43	35	13	48
1979-1981	3	2	5	65	14	79	68	16	84
1983-1985	8	3	11	55	14	69	63	17	80

TABLE 3. SUICIDE RATES OF 15-19 YEAR-OLDS BY SEX, OREGON, 1959-1961, 1969-71, 1979-81, 1983-85.

PERIOD	SEX		
	Male	Female	Total
1959-61	4.6	1.0	2.8
1969-71	10.2	3.9	7.0
1979-81	18.9	4.2	11.7
1983-85	17.7	4.7	11.3

TABLE 4. TEENAGE SUICIDES BY RACE AND AGE, OREGON RESIDENTS, 1983-1985.

AGE	TOTAL		RACE				
	#	%	White	Black	Indian	Hispanic	Asian & Pacific Islanders
10	-	-	-	-	-	-	-
11	3	3.8	3	-	-	-	-
12	-	-	-	-	-	-	-
13	4	5.0	4	-	-	-	-
14	4	5.0	4	-	-	-	-
15	6	7.5	6	-	-	-	-
16	7	8.8	6	-	-	1	-
17	14	17.5	11	-	2	1	-
18	12	15.0	11	-	1	-	-
19	30	37.5	25	1	2	1	1
Total Number	80	-	70	1	5	3	1
Total Percent	-	100.0	87.5	1.3	6.3	3.8	1.3

TABLE 5. TEENAGE SUICIDES BY EMPLOYMENT STATUS AND SEX, OREGON RESIDENTS, 1983-1985.

SEX	TOTAL		EMPLOYMENT STATUS		
	#	%	Student	Employed	Other
Male	63	78.8	37	25	1
Female	17	21.3	13	3	1
Total Number	80	-	50	28	2
Total Percent	-	100.0	62.5	35.0	2.5

Time of Death

Teens were less apt to commit suicide on Wednesday and Thursday than other days of the week; however, the numbers are relatively small. The following numbers of deaths were recorded; Sunday, 14; Monday, 14; Tuesday, 13; Wednesday, 9; Thursday, 7; Friday, 11; and Saturday, 12. December was the most common month in which teens took their own life. Eleven youths terminated their life during the last month of the year compared to an average of 6.3 per month for the remainder of the year. Over a third (34 percent) of the teenagers died during the winter months of December, January, and February when 25 percent would have been expected. Nineteen percent of the suicides occurred during the summer, the season with the lowest frequency. Each of the other two seasons accounted for 24 percent of the deaths. The differences are not statistically significant.

Location of Suicide

In comparison with those during 1979-1981, teens committing suicide during 1983-1985 were far more likely to do so at home. Seven in every ten (72 percent) teenagers killed themselves at their own home. Whether they were living with their parents or on their own is unknown. Public places were the site of suicide in 16 percent of the cases. This category includes parks, roads, rivers, vacant lots, and school yards. Three teens (4 percent) hung themselves while in jail. Two others shot themselves at another person's home. A motel, farm, nursing home, and state hospital were the sites of four additional suicides.

Teenagers residing east of the Cascade Range or in the six northwestern Oregon counties were more apt to kill themsevles at home (80 percent) than those living elsewhere (59 percent). Teenagers under 18 years of age were more likely to kill themselves at home than 18 and 19 year-olds, 89 percent compared to 57 percent. Females committed suicide in their own home 88 percent of the time, but only 68 percent of the males did so. Eight of ten (82 percent) students took their own lives at home, compared to 54 percent of those who were employed, but this is probably related to age; the students are younger than those in the work force.

Almost nine of ten (85 percent) of the teens who used guns to take their own lives, did so at home, compared to 53 percent of those using another method.

Method

Shooting has become less popular than during 1979-1981. Seventy-four percent of all teens committing suicide during that time period used guns, compared to 60 percent during 1983-1985. However, this decline may be due to chance statistical variation; the overall trend has been upward in past years (Figure 4).

Hanging has become increasingly prevalent, accounting for 25 percent of the suicides compared to 14 percent previously. The following items were recorded to have been used by the decedents to hang themselves: sheet, 4; rope, 4; belt, 3; electric cord, 1; clothesline, 1; and necktie, 1.

Carbon monoxide in the form of auto exhaust was the third most common method, accounting for six percent of the deaths. Other less common methods included: poisoning with an overdose of drugs, 2 individuals; jumping from a bridge or overpass, 2; self-immolation, 2; and jumping in front of a truck, 1. The two self-immolations occurred within three weeks of each other, both in Marion County.

FIGURE 4

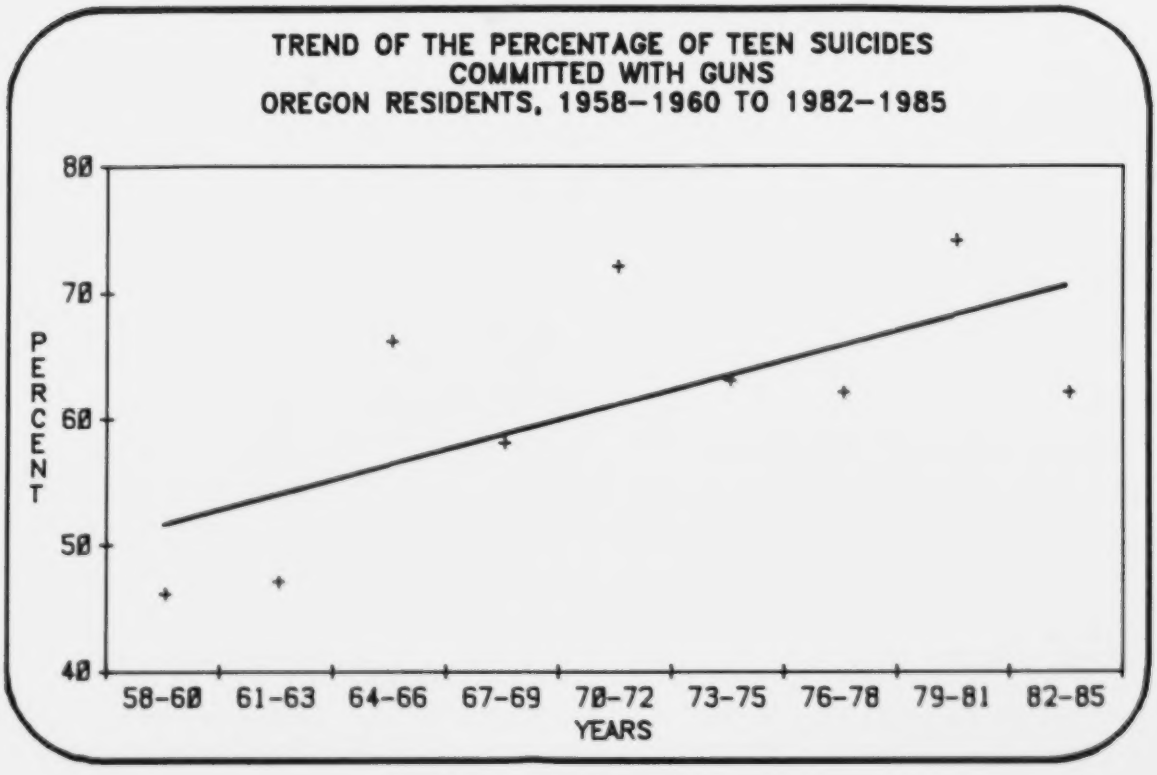


FIGURE 5

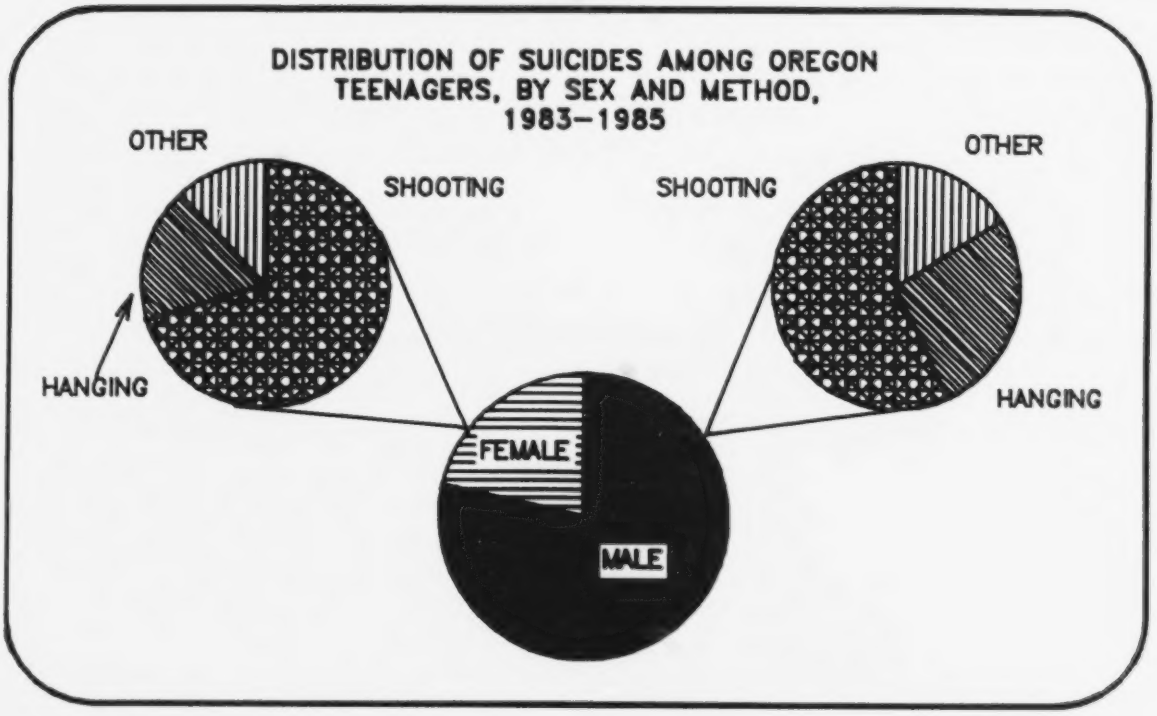
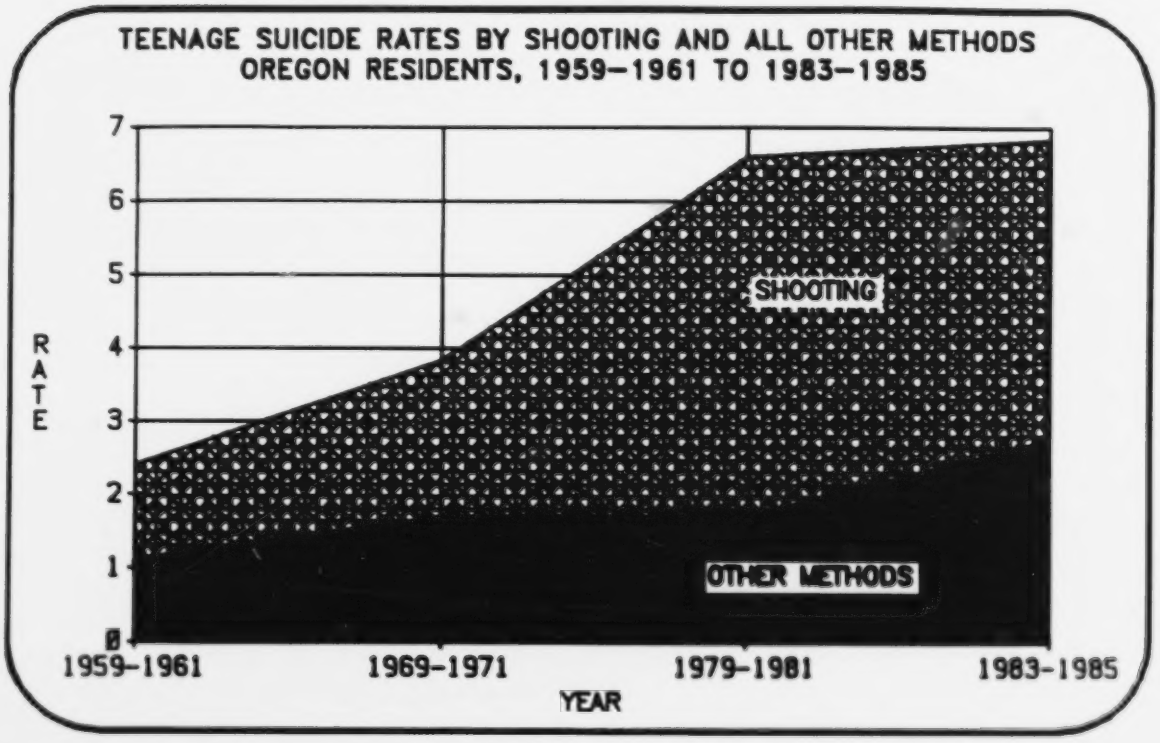


FIGURE 6



Guns are the preeminent method of suicide of Oregon teenagers. In fact, firearms and hanging were the universal methods used up to age 17. Not until age 18 or 19 did suicidal teenagers use more diverse methods. Female teenagers are more apt to use guns than their male counterparts: 71 percent did so compared to 57 percent of the males (Figure 5). No female committed suicide by drug overdose, jumping in front of a vehicle, or self-immolation.

Between 1959-1961 and 1979-1981, gun use almost quadrupled (Table 6). However, for the most recent three-year period, the suicide-by-shooting rate declined slightly, from 4.9 to 4.1. At the same time, the suicide rate for teenagers using other methods continued to increase, exhibiting the sharpest upturn in over twenty years (Figure 6). The rate rose from 1.7 to 2.7. Nonetheless, the death rate for suicides by a method other than shooting increased only 71 percent as much as suicides by shooting during the past quarter century.

Teenagers living east of the Cascade Range were more likely to use a gun to kill themselves; 71 percent did so. By comparison, only 56 percent of the teens west of the mountains used guns (Table 7).

Handguns were the most frequently used (63 percent) type of gun. Rifles were used by 32 percent of the teens, while the remainder used shotguns. Females were more apt to use handguns than males, 80 percent compared to 57 percent.

TABLE 6. TEENAGE SUICIDE RATES BY SHOOTING AND ALL OTHER METHODS, OREGON 1959-61, 1969-71, 1979-81, 1983-85.

PERIOD	METHOD		TOTAL RATE
	Shooting Rate	All Other Rate	
1959-61	1.32	1.10	2.42
1969-71	2.17	1.68	3.85
1979-81	4.90	1.71	6.61
1983-85	4.11	2.74	6.85

TABLE 7. TEENAGE SUICIDES BY METHOD AND COUNTY OF RESIDENCE, 1983-85.

COUNTY OF RESIDENCE	METHOD						
	TOTAL	Poisoning Solid	Poisoning Gas	Hanging	Firearms	Jumping from High Places	Other
Total	80	2	5	20	48	2	3
Baker	1	-	-	1	-	-	-
Benton	3	1	-	1	1	-	-
Clackamas	4	-	-	2	2	-	-
Clatsop	1	-	-	1	-	-	-
Columbia	-	-	-	-	-	-	-
Coos	3	-	-	1	2	-	-
Crook	2	-	1	1	-	-	-
Curry	-	-	-	-	-	-	-
Deschutes	4	-	1	-	3	-	-
Douglas	2	-	-	-	2	-	-
Gilliam	-	-	-	-	-	-	-
Grant	1	-	-	-	1	-	-
Harney	-	-	-	-	-	-	-
Hood River	-	-	-	-	-	-	-
Jackson	4	-	-	3	1	-	-
Jefferson	3	-	-	1	2	-	-
Josephine	1	-	-	-	1	-	-
Klamath	2	-	-	-	2	-	-
Lake	-	-	-	-	-	-	-
Lane	3	-	1	-	1	-	1
Lincoln	1	-	-	-	1	-	-
Linn	2	-	-	-	2	-	-
Malheur	4	-	-	-	4	-	-
Marion	7	1	1	2	1	-	2
Morrow	-	-	-	-	-	-	-
Multnomah	17	-	1	4	11	1	-
Polk	1	-	-	-	1	-	-
Sherman	-	-	-	-	-	-	-
Tillamook	1	-	-	-	1	-	-
Umatilla	4	-	-	1	3	-	-
Union	-	-	-	-	-	-	-
Wallowa	-	-	-	-	-	-	-
Wasco	-	-	-	-	-	-	-
Washington	7	-	-	2	4	1	-
Wheeler	-	-	-	-	-	-	-
Yamhill	2	-	-	-	2	-	-

CONCLUSIONS

The high suicide rates of today's youth pose both immediate and long-range problems. They are needless deaths occurring now, and they also imply that the suicide rates of today's young Oregonians will remain high during subsequent decades. Two studies, one in Canada (6) and the other in the United States (7), demonstrated that when the suicide rate for a given cohort of 15-19 year-olds is higher than that for the 15-19 year-olds born five years earlier, that cohort is likely to experience a higher rate when it reaches 20-24 than the immediately preceding cohort. This suggests that elevated suicide rates will persist in coming years.

Sudak et al. (8) summarized the causation of the increased frequency of suicides among teenagers:

> During the last 25 years, changes in several factors may be associated with the rising rates of adolescent suicide both nationally and in large urban communities. Some of these factors have been implicated in previous studies of suicide, factors such as increased population density giving rise to greater competition, failure, and decreased income; alienation due to social disorganization, increased migration and social mobility, deteriorating neighborhoods, rapidly expanding suburbs, increased criminal victimization, and unemployment; family and personal disorganization with increased divorce rates, illegitimate pregnancies, diminished religious and moral values, increased child abuse, exposure to violence in multiple ways; and increased use of alcohol and drugs. Many of these social changes could lead to lowered self-esteem, reduced coping skills and loss of hope.

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